Amendments to the Claims:

This listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method for routing a message to a function instance comprising the steps of:

receiving the message; requesting a destination address for the function instance from a local repository;

whenever the destination address is local, sending the message to the function instance;

whenever the destination address is remote, packaging the message with the destination address and sending the packaged message to the function instance; and

whenever the destination address is not found, requesting the destination address for the function instance from a remote repository, packaging the message with the requested destination address and sending the packaged message to the function instance.

2. (Original) The method as recited in claim 1, wherein the step of sending the message to the function instance comprises the step of sending the message to a queue for delivery of the message to the function instance via a dispatcher.

3. (Original) The method as recited in claim 1, further comprising the step of storing the requested destination address in the local repository whenever the destination address is not found.

4. (Original) The method as recited in claim 1, wherein the function instance includes a label and the destination address is requested using the label.

5. (Original) The method as recited in claim 1, wherein the local repository and the remote repository are look up tables.

6. (Original) The method as recited in claim 1, wherein the local repository and the remote repository are databases.

7. (Original) The method as recited in claim 1, wherein the message is received from a local function instance.

8. (Original) The method as recited in claim 1, the message is received from a remote function instance.

9. (Original) A computer program embodied on a computer readable medium for routing a message to a function instance comprising:

a code segment for receiving the message;

a code segment for requesting a destination address for the function instance from a local repository;

whenever the destination address is local, a code segment for sending the message to the function instance;

whenever the destination address is remote, a code segment for packaging the message with the destination address and a code segment for sending the packaged message to the function instance; and

whenever the destination address is not found, a code segment for requesting the destination address for the function instance from a remote repository, a code segment for packaging the message with the requested destination address and a code segment for sending the packaged message to the function instance.

10. (Original) The computer program as recited in claim 9, wherein the code segment for sending the message to the function instance comprises a code segment

for sending the message to a queue for delivery of the message to the function instance via a dispatcher.

11. (Original) The computer program as recited in claim 9, further comprising a code segment for storing the requested destination address in the local repository whenever the destination address is not found.

12. (Original) The computer program as recited in claim 9, wherein the function instance includes a label and the destination address is requested using the label.

13. (Original) The computer program as recited in claim 9, wherein the local repository and the remote repository are local look up tables.

14. (Original) The computer program as recited in claim 9, wherein the local repository and the remote repository are databases.

15. (Original) The computer program as recited in claim 9, wherein the message is received from a local function instance.

16. (Original) The computer program as recited in claim 9, the message is received from a remote function instance.

17. (Original) An apparatus for routing a message to a function instance comprising:

a local repository;

a messaging agent communicably coupled to the local repository, the messaging agent receiving the message, requesting a destination address for the function instance from the local repository;

whenever the destination address is local, the messaging agent sending the message to the function instance;

whenever the destination address is remote, the messaging agent packaging the message with the destination address and sending the packaged message to the function instance; and

whenever the destination address is not found, the messaging agent requesting the destination address for the function instance from a remote repository, packaging the message with the requested destination address and sending the packaged message to the function instance.

18. (Original) The apparatus as recited in claim 17, further comprising:

a queue communicably coupled to the messaging agent; a dispatcher communicably coupled to the queue; and

the messaging agent sending the message to the function instance by sending the message to the queue for delivery of the message to the function instance via the dispatcher.

19. (Original) The apparatus as recited in claim 17, wherein the messaging agent further stores the requested destination address in the local repository whenever the destination address is not found.

20. (Original) The apparatus as recited in claim 17, wherein the function instance includes a label and the destination address is requested using the label.

21. (Original) The apparatus as recited in claim 17, wherein the local repository and the remote repository are local look up tables.

22. (Original) The apparatus as recited in claim 17, wherein the local repository and the remote repository are databases.

23. (Original) The apparatus as recited in claim 17, wherein the message is received from a local function instance.

24. (Original) The apparatus as recited in claim 17, the message is received from a remote function instance.

25. (Original) A system for routing a message to a function instance comprising:

a system label manager;

a system label repository communicably coupled to the system label manager;

one or more messaging agents communicably coupled to the system label manager;

a repository communicably coupled to each of the one or more messaging agents; and

each messaging agent capable of:

receiving the message,

requesting a destination address for the function instance from the repository,

whenever the destination address is local, sending the message to the function instance,

whenever the destination address is remote, packaging the message with the destination address and sending the packaged message to the function instance, and

whenever the destination address is not found, requesting the destination address for the function instance from the system label manager, packaging the message with the requested destination address and sending the packaged message to the function instance.

26. (Original) The system as recited in claim 25, further comprising:

a queue communicably coupled to each messaging agent;

a dispatcher communicably coupled to the queue; and

the messaging agent sending the message to the function instance by sending the message to the queue for delivery of the message to the function instance via the dispatcher.

27. (Original) The system as recited in claim 25, wherein the messaging agent further stores the requested destination address in the repository whenever the destination address is not found.

28. (Original) The system as recited in claim 25, wherein the function instance includes a label and the destination address is requested using the label.

29. (Original) The system as recited in claim 25, wherein the repository and the system label repository are look up tables.

30. (Original) The system as recited in claim 25, wherein the repository and the system label repository are databases.